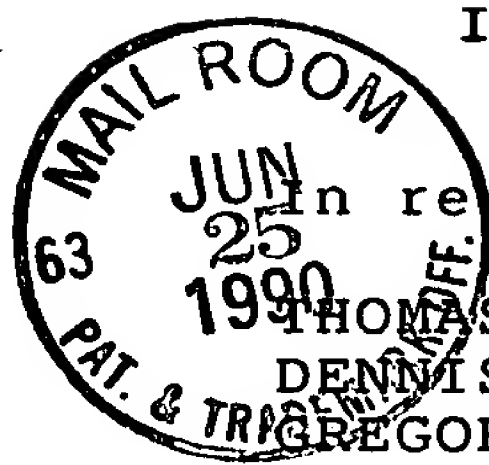


2. L. S.
8/20/96
#2/Prior art



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of)
THOMAS P. HANSCHEN,) Group Art Unit: 154
DENNIS L. KRUEGER and)
GREGORY P. KARP)
Serial No. 07/502,330) Examiner:
Filed: March 30, 1990)
For: SPATIALLY MODIFIED) File No. 44938 USA 5A
ELASTIC LAMINATES)

INFORMATION DISCLOSURE STATEMENT

Honorable Commissioner
of Patents and Trademarks
Washington, D.C. 20231

Sir:

RECEIVED
JUN 27 1990
GROUP 150

In accordance with Applicants' duty of disclosure as set forth in 37 C.F.R. 1.56, 1.97 and 1.98, the following documents are included for the Examiner's consideration and review in the application identified in caption.

Included are the patents discussed in the specification of the application identified in caption, namely:

| <u>U.S. Patent No.</u> | <u>Page No.</u> | <u>Line No.</u> |
|-----------------------------|-----------------|-----------------|
| 3,265,765 (Holden et al.) | 9 | 5 |
| 3,365,315 (Beck et al.) | 10 | 32 |
| 3,479,425 (Lefevre et al.) | 25 | 34 |
| 3,557,265 (Chisholm et al.) | 23 | 18 and |
| | 25 | 33 |
| 3,562,356 (Nyberg et al.) | 9 | 5 |
| 3,694,815 (Burger) | 2 | 13 |
| 3,700,633 (Wald et al.) | 9 | 5 |

I HEREBY CERTIFY THAT THIS CORRESPONDENCE IS BEING DEPOSITED WITH THE UNITED STATES POSTAL SERVICE AS FIRST CLASS MAIL IN AN ENVELOPE ADDRESSED TO: COMMISSIONER OF PATENTS AND TRADEMARKS, WASHINGTON, D.C. 20231, ON June 22, 1990
SIGNED [Signature]
WILLIAM J. BOND NO. 32,400

| <u>U.S. Patent No.</u> | <u>Page No.</u> | <u>Line No.</u> |
|----------------------------|-----------------|-----------------|
| 3,800,796 (Jacob) | 4 | 24 and |
| | 36 | 14 |
| 4,116,917 (Eckert) | 9 | 5 |
| 4,152,387 (Cloeren) | 23 | 23 |
| 4,156,673 (Eckert) | 9 | 5 |
| 4,177,812 (Brown) | 36 | 34 |
| 4,181,752 (Martens et al.) | 60 | 26 |
| 4,197,069 (Cloeren) | 23 | 24 |
| 4,227,952 (Sabee) | 4 | 25 |
| 4,386,125 (Shiraki et al.) | 10 | 6 |
| 4,435,141 (Weisner et al.) | 23 | 32 |
| 4,476,180 (Wnuk) | 10 | 19 |
| 4,681,580 (Reising et al.) | 1 | 14 |
| 4,710,189 (Lash) | 1 | 20 |
| 4,767,726 (Marshall) | 10 | 32 |
| 4,778,701 (Pape et al.) | 4 | 25 |
| 4,813,947 (Korpman) | 10 | 10 |
| 4,834,820 (Kondo et al.) | 4 | 24 |
| UK Patent Appln. 2160473A | 2 | 28 |
| UK Patent Appln. 2190406A | 2 | 21 |

U.S. Patent No. 4,303,571 (Jansen et al.)

describes film forming thermal elastic elastomers comprised of EPM or EPDM elastomers, ethylene-vinyl-acetate copolymers and a hydrocarbon oil plasticizer. The material is described as a heat-activatable elastic.

U.S. Patent No. 4,795,456 (Borgers et al.)

discloses an elastic diaper tab. The tape is a laminate structure which, as generally described, is an adhesive layer (5) an elastic layer (4), a second adhesive layer (3) and a non-extensible carrier film (2) which may have thereon a release coating (1), respectively. This laminate structure is interrupted at a central portion

(20) tape which is comprised of the elastic layer alone. The ability to extend the elastic tab is limited primarily to this central portion (20), with the laminated areas remaining nonextensible (column 3, lines 16-24).

U.S. Patent No. 4,813,946 (Sabee) discloses a method for applying elastic to the leg portions of a diaper. The elastic is carried to the leg area where it is attached to the components of the diaper on a carrier strip, which is preferably formed of a non-elastic material. The carrier strip is used so as to permit the elastic to be transported to the diaper assembly area in discrete lengths. This results in a savings of elastic over methods which apply elastic to the leg area of a diaper from a continuous band of elastic which are applied in a similar manner, i.e., continuous elastic transported to a flat diaper film in a stretched condition, where the elastic is allowed to relax after assembly.

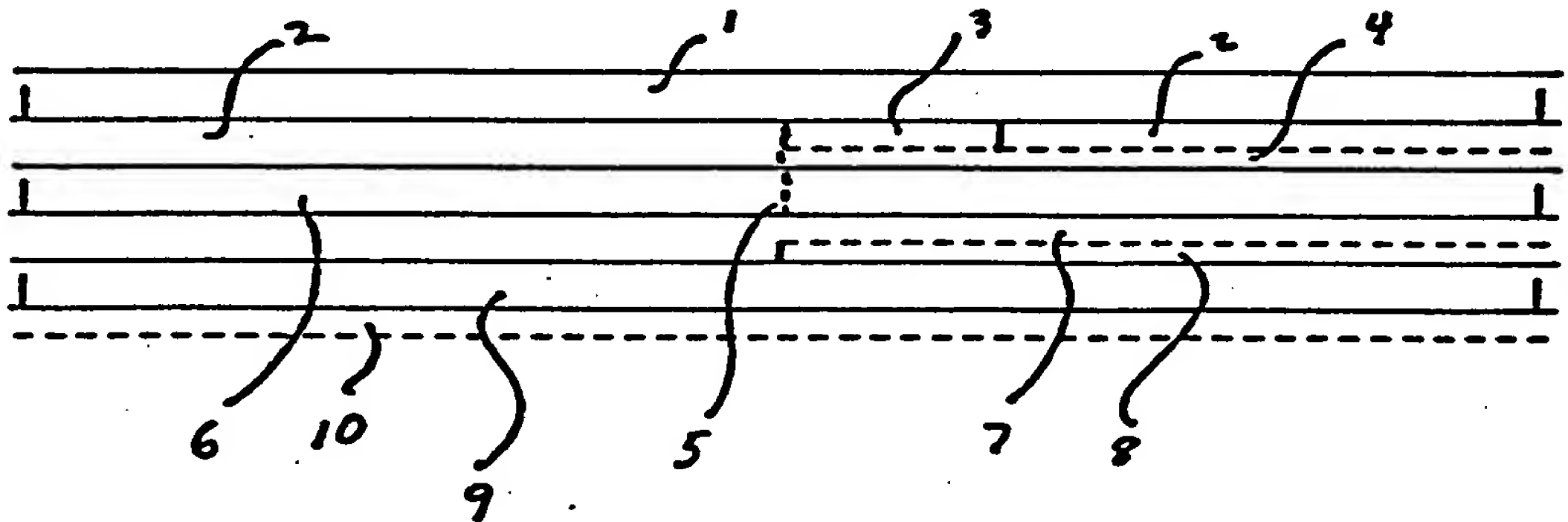
U.S. Patent No. 4,820,590 (Hodgson, Jr. et al.) describes a particular thermoplastic elastomer which is capable of forming a heat-activatable thermoplastic elastomer.

U.S. Patent No. 4,880,682 (Hazelton et al. filed March 22, 1988, issued November 14, 1989) describes a multilayer film with an elastomeric core layer and two thermoplastic film outer skin layers which are in intermittent contact with the core layer. This intermittent contact is particularly emphasized such that the elastomer and skin layers must be selected to yield this form of contact (column 3, lines 23-32). The film is stretched one to three times to form the intermittent contact and resultant undulations. The films exemplified all use as least EPM and butyl rubber in the core elastomeric layer. The skin layers are all predominately EVA.

U.K. Patent Specification No. 1,264,196

(Goldman) describes a laminar packaging film comprising an inner layer of styrene-butadiene elastomer with outer layers of ethylene-vinyl-acetate (28% VA content, EVA exemplified). The exemplified film had an SBS inner layer 1.5 mils thick with 0.3 mil EVA cover layers. The extensibility of the outer layer is described as 50% that of the inner layer. The exemplary film outer layer extensibility was 500%, while the inner layer extensibility was 1000%.

An elastic diaper fastening tab was obtained from a trade show, Idea '88, held in Baltimore, MD in September 1988. The elastic tab was announced as a new product by Avery International (Code No. SEVA X 4350) and comprised a multicomponent laminated structure as shown below. 1 is an elastomeric layer having an adhesive coating 2 (no adhesive in area 3). Paper liner 6 is under the elastomer having a low adhesion backsize (LAB) coating at least at 4 (the opposite end on the same face releases from the elastomer 1, but at a much higher peel force). A tear line 5 is also on liner 6 to allow it to separate. Adhesive 7 adheres liner 6 to a second paper substrate 9, which also has an LAB at least at 8. The opposite face of substrate 9 has an adhesive layer 10 which is protected by an LAB coated release paper.



The elastomer layer 1 was examined by IR spectral analysis and appeared to be a block copolymer elastomer (most likely SBS) with thin cover layers of a polyolefin material (most likely polypropylene). There also appeared to be an LAB layer (most likely silicone) at least on the outer surface (non-adhesive coated surface). When the material was stretched 6 to 1, it immediately recovered and became slightly opaque. Under a scanning electron microscope, there was observed a very fine undulating surface structure.

The laminated structure shown above appears to be a target tape construction. The end with LAB layers 4 and 8 would be user-placed. The other end would be permanently attached to the diaper. Tape 9 would wrap around the diaper edge and attach to the front and back faces. The user-placed ends of tapes 1 and 6 would then be removed by the user and placed on the diaper front. If these tapes are stretched, the stretch would all occur in region 3 of tape 1. If the user wished to open and reclose the diaper, tape 1 would probably be removed from tape 6 and then readhered thereon.

The summaries above are merely that and should not be considered as necessarily pointing out all potentially relevant portions of the documents summarized. Assertion of the particular relevance of each of the documents summarized is a matter within the unique discretion of the Patent Office and for this reason complete copies of the summarized documents are included herewith.

In order to facilitate consideration of the above discussed documents, the documents have been listed on a Form PTO-1449 for the Examiner's convenience.

In view of the above, initial and favorable action in the form of a Notice of Allowance is respectfully requested.

Respectfully submitted,


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WJB/jvd

Dated: June 22, 1990

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